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Virgatanytarsus new genus – for the “*triangularis*” group of the genus *Tanytarsus* van der Wulp

(Diptera: Chironomidae)

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Abstract

Following a detailed study of the immature stages of Tanytarsini the status of the so-called “*triangularis*” group of the genus *Tanytarsus* is reassessed and raised to generic rank under the name *Virgatanytarsus*.

Introduction

In their revision of the male imagines of the European *Tanytarsus* species, REISS and FITTKAU (1971) expressed the opinion that several of the species groups which they distinguished would ultimately, with better knowledge of the immature stages, be found to merit generic status. Subsequently KUGLER and REISS (1973) provided an extensive diagnosis of the “*triangularis*” group, which included descriptions of the larvae and pupae of 3 species. Recently, in the process of preparing keys to genera of Holarctic Tanytarsini it has been necessary to reappraise the status of this group.

Although immature stages are described for only 3 of the 6 known species they, together with the male imagines possess morphological characteristics which set them apart from all other Tanytarsini. On this basis the “*triangularis*” group of REISS and FITTKAU (1971) is elevated to generic status.

Since KUGLER and REISS (1973) provided a detailed diagnosis for the “*triangularis*” group, only the differentially diagnostic characters are given here.

Virgatanytarsus n. gen.

Type species: *Tanytarsus arduennensis* (Goetgh.) 1922: 43–44. (REISS & FITTKAU 1971, p. 149, fig. 65). (= *Virgatanytarsus arduennensis* [Goetgh.] n. comb.).

Etymology: Virga (Latin) = rod, an allusion to the peculiar rod-like structures found on the anal points of the males.

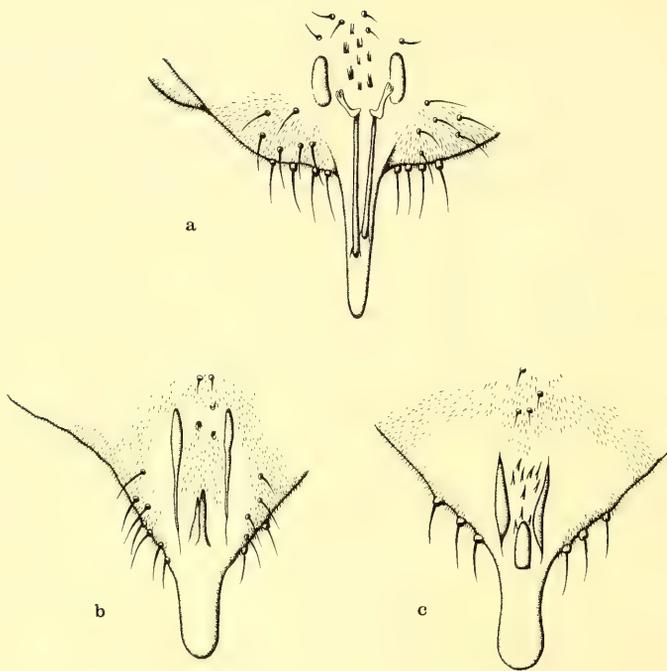


Fig. 1: Anal tergite of male *Virgatanytarsus* spp.; (a) *V. arduennensis*, (b) *V. nigricornis*, (c) *V. hulensis*

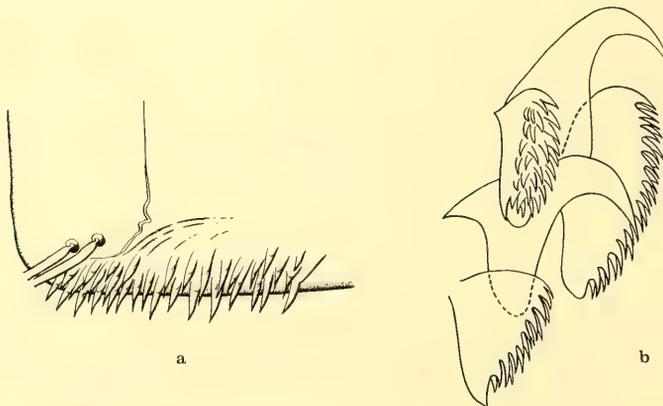


Fig. 2: Diagnostic features of immature *Virgatanytarsus* spp. (a) Anal comb of segment VIII of *V. triangularis* pupa, (b) Claws of posterior parapod of *V. arduennensis* larva.

Differential diagnosis

Imago ♂: anal point either with a pair of long, orally directed, rod-like structures (Fig. 1a) or with homologous, but simpler structures (Fig. 1b, c). A pair of high lamellae, homologous with anal combs of *Tanytarsus* spp., occurs on the anal tergite, between which are several groups of spines (Figs 1 & 3).

Pupa: anal comb of segment VIII very wide, occupying $\frac{1}{4}$ to $\frac{1}{3}$ width of segment (Fig. 2a).

Larva: some claws of posterior parapod in form of more or less triangular plates, with 1 or more rows of hooklets along 1 side (Fig. 2b).



Fig. 3: Scanning electron micrographs of anal point of *V. maroccanus*; lateral, dorsal.

Discussion

Similar processes also occur on the anal point of the Neotropical genus *Caladomyia* Säwedal (SÄWEDAL 1981) but in this case they point in a posterior direction. Anteriorly directed processes are not found in any Tanytarsini other than the 6 known species of *Virgatanytarsus*. They are developed to their maximum extent in *V. arduennensis*, *V. maroccanus* (Kugler & Reiss), *V. subreflexens* (Freeman) and *V. triangularis* (Goetgh.). Each of the 2 rods is in reality a double structure, although this is only apparent using the scanning electron microscope (Fig. 3). In the remaining species, *V. nigricornis* (Goetgh.)

and *V. hulensis* (Kugler & Reiss) the processes are represented by a pair of slender spines and a single sausage-shaped process respectively. In *Virgatanytarsus* the raised lamellae and enclosed groups of spines are always placed on the anal tergite whereas the homologous structures in *Tanytarsus* always occur on the anal point itself.

Although the immature stages of only 3 species are described, the broad anal combs of the pupae and unusual morphology of the claws of the posterior parapods of the larvae are unique to this genus. It is therefore a reasonable assumption that similar structures occur in the immature stages of the 3 remaining species.

KUGLER and REISS (1973) give a full description of the female of *V. arduennensis* but females of the other species are undescribed, as are those of most *Tanytarsus* species. Hence it is not possible at present to give a generic diagnosis for the female imagines.

Acknowledgements

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